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EXAMINER

FINEMAN, LEE A

ART UNIT PAPER NUMBER

2872

DATE MAILED: 09/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/682,659

Applicant(s)

HEY, JOHN

Examiner

Lee Fineman

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 14-19, 21-26, 41 and 42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-19, 21-26, 41 and 42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This Office Action is in response to an amendment filed 18 June 2003 in paper number 4 in which claims 14, 18-19 and 41-42 were amended and claims 1-13, 20 and 27-40 were cancelled. Claims 14-19, 21-26 and 41-42 are pending.

#### ***Specification***

1. The disclosure is objected to because of the following informalities:

On page 4, section [0014], line 1, "FIG. 4" should be --FIGS. 4A and 4B--.

On page 4, section [0021], line 1, FIG. 11C is listed, but no FIG 11C exists. Therefore FIG. 11C should be removed from the description.

Appropriate correction is required.

#### ***Claim Objections***

2. Claim 41 is objected to because of the following informalities: "the viewer's perspective" lack antecedent basis. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 14-19, 21-26, and 41-42 rejected under 35 U.S.C. 103(a) as being unpatentable over Craig, U.S. Patent No. 4,740,836, in view of Surati et al., U.S. Patent No. 6,456,339 B1.

Regarding 14-15, 18-19, 21, 26 and 41-42, Craig discloses a system for stereoscopic viewing of an image (fig. 4) comprising a means (11, fig. 1) for displaying upon a generally flat surface a conventional stereoscopic pair of images (13 and 15, fig. 1), proximate but separately from one another and in which the images are arranged one above the other; an optical device (41), which is a prism, adapted to be placed in front of and proximate to a viewer's eyes (fig. 4), which device is worn by the viewer (column 6, lines 11-14) comprising a means for re-angling the optical axis for at least one eye, so that each eye generally targets the center of a respective one of the pair of images (fig. 5 and column 7, line 35-column 8, line 14), employed to effect a stereoscopic meld of two 2-dimensional images (column 5, lines 49-55); and wherein the images are displayed upon a surface large enough to subtend an immersive portion of the viewer's visual field (column 8, lines 6-14). Craig discloses the claimed invention except in which at least one image is deliberately distorted prior to display to counteract distortion caused by the viewer's perspective relative to the image or image-mismatch cause by the viewing device. Surati et al. teaches a system for viewing an image (fig. 13a) with a means (407) of distorting at least one of the images, in which at least one image is deliberately distorted prior to display to counteract distortion (column 8, lines 54-57) caused by the viewer's perspective relative to the image or image-mismatch caused by the viewing device (column 1, lines 51-60, in so far as the same problems projecting the image on a screen are encountered by the viewer viewing the screen). It would have been obvious to one of ordinary skill in the art at the time the invention was made to

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provide a means to deliberately distort at least one image prior to display as suggested by Surati et al. to the system of Craig to improve the performance of the display (column 9, lines 23-25).

Regarding claims 16-17 and 25, Craig further discloses a system in which the optical axis for exactly one eye is reangled (column 5, lines 21-36) and wherein the optical device comprises a pair of mirrors for each reangled eye (column 7, lines 31-34 and figs. 5b<sub>1</sub> and 5b<sub>2</sub>) and at least one mirror is adjustable to accommodate variation in image positioning or viewing distance (column 8, lines 1-5).

Regarding claims 22-24, Craig further discloses a system wherein the images comprise the display for a video game, a televised display of still- or motion-picture images and a computer-graphics display of still or motion picture images (column 4, lines 37-39 and column 5, lines 1-2).

### ***Response to Arguments***

5. Applicant's arguments filed 18 June 2003 have been fully considered but they are not persuasive.

Firstly, applicant includes arguments for Huang and Toriu references. As these references were not cited or included in any rejections, these arguments are moot.

Secondly, applicant argues that while Surati does use image pre-distortion to "normalize" images, the present inventions use of this technique is highly specific to the fixed distortion dictated by its stereoscopic-viewing methodology. The examiner respectfully disagrees. The types of distortion that are being corrected by Surati are the same problems the viewer incurs and are being corrected in the instant application (see column 1, lines 51-60 of Surati).

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*Conclusion*

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lee Fineman whose telephone number is (703) 305-5414. The examiner can normally be reached on Monday - Friday 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (703) 305-0024. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4900.



LAF  
August 27, 2003

  
**MARK A. ROBINSON**  
**PRIMARY EXAMINER**